

Appl. No.: 10/019,855
Filed: November 9, 2001
Page 2

Amendments to the Claims:

1.-29. (cancelled)

30. (currently amended) A device for examining materials comprising

a pulse generator for generating a pulse that can be introduced into the material,

at least one sensor configured for being positioned with respect to the material so as to detect the pulse, and

an electronic evaluation device for discriminating the pulse from interfering pulses, with the electronic evaluation device and the at least one sensor being integrated in a unitary one-piece structure, whereby the pulse evaluation may be effected adjacent the sensor with minimal communication paths and minimal electromagnetic interference.

31. (previously presented) The device of Claim 30, wherein the pulse is a mechanical and/or electrical pulse.

32. (previously presented) The device of Claim 30 wherein the electronic evaluation device includes means for generating an electrical signal.

33. (previously presented) The device of Claim 32 wherein the electrical signal is connected for transmission to a central unit.

34. (previously presented) The device of Claim 33 wherein the central unit comprises a personal computer.

Appl. No.: 10/019,855
Filed: November 9, 2001
Page 3

35. (previously presented) The device of Claim 30, wherein said device comprises a plurality of said sensors, and wherein an electronic evaluation device is integrated with each sensor as part of a unitary structure.

36. (previously presented) The device of Claim 35 wherein said sensors are electrically interconnected.

37. (previously presented) The device of Claim 35 wherein each of the sensors is operatively connected to a central unit.

38. (previously presented) The device of Claim 35 wherein each of the sensors is operatively connected to a central unit via a transmitter-receiver unit associated with each sensor.

39. (previously presented) The device of Claim 35 wherein each of the sensors has a vibration damper associated therewith.

40. (previously presented) The device of Claim 39 wherein each vibration damper is a piezoelectric element.

41. (previously presented) The device of Claim 35 wherein a transmission pin for detecting the pulse is associated with each sensor.

42. (previously presented) The device of Claim 35 wherein a clock is associated with each sensor.

Appl. No.: 10/019,855
Filed: November 9, 2001
Page 4

43. (previously presented) The device of Claim 35 wherein an identification symbol is associated with each sensor.

44. (previously presented) The device of Claim 35 wherein a storage for measurement results is associated with each sensor.

45. (previously presented) The device of Claim 35 wherein a display for measurement results is associated with each sensor.

46. (previously presented) The device of Claim 35 wherein said pulse generator comprises means for introducing electrical pulses into the material being examined.

47. (previously presented) The device of Claim 35 wherein said pulse generator is mounted to at least one of said unitary structures for introducing pulses to the material being examined.

48. (previously presented) The device of Claim 47 wherein said pulse generator includes a pin.

49. (previously presented) The device of Claim 35 wherein said pulse generator comprises a hammer.

50. (previously presented) The device of Claim 35 wherein each electronic evaluation device includes means for self calibration.

Appl. No.: 10/019,855
Filed: November 9, 2001
Page 5

51. (previously presented) The device of Claim 35 wherein each sensor is connected to a pull out measurement stick.

52. (previously presented) The device of Claim 35 wherein each sensor is connected to a rope with an angle display.

53. (previously presented) The device of Claim 35 further comprising an infrared or laser distance measuring instrument for measuring the position of each sensor.